

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:
a) input means for inputting image data of plural
objects;
5 b) encoding means for encoding the image data
inputted by said input means on an object basis; and
c) control means for setting a priority order of code
amount allocation for each of the objects and in
accordance with said priority order, controlling
10 encoding conditions for each of the objects in said
encoding means,

wherein said control means controls the encoding
conditions in said encoding means so that a total code
amount obtained by encoding the image data of said
15 plural objects does not exceed a predetermined code
amount.

2. An apparatus according to claim 1, wherein
said control means changes said priority order at a
20 predetermined timing.

3. An apparatus according to claim 2, wherein
said predetermined timing is determined according to
how many times a code amount reduction processing for
25 said objects is executed or according to code amounts
of said objects.

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4. An apparatus according to claim 1, wherein,
when the code amount of an object set to a lowest
priority becomes smaller than a predetermined lower
limit value, said control means sets an other object to
the lowest priority.

5. An apparatus according to claim 1, wherein
said encoding means breaks down the image data of said
objects at least into pixel data and shape data and
encodes the pixel data and the shape data, and said
control means determines said priority order in
accordance with a size of shape data of said objects.

6. An apparatus according to claim 1, wherein
said encoding means executes the encoding operation in
accordance with MPEG-4, and said control means
determines said priority order in accordance with the
sizes of bounding boxes of said objects.

7. An apparatus according to claim 1, wherein
said encoding means includes quantization means for
quantizing the image data of said objects, and
quantization parameters of said quantization means are
controlled by said encoding conditions.

8. An apparatus according to claim 1, further
comprising recording means for recording the data

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encoded by said encoding means into a recording medium.

9. An image processing apparatus according to claim 1, wherein said input means comprises image pickup means for photographing an object image and generating image data.

10. A video camera provided with the image processing apparatus according to claim 1.

11. An image processing method comprising the steps of:

- a) inputting image data of plural objects;
- b) encoding the inputted image data on an object basis; and
- c) setting a priority order of code amount allocation for each of the objects and, in accordance with said priority order, controlling encoding conditions for each of the objects in said encoding step,

wherein, in said controlling step, the encoding conditions in said encoding step are controlled so that a total code amount obtained by encoding the image data of said plural objects does not exceed a predetermined code amount.

12. A storage medium for storing program codes of encoding steps, said encoding steps comprising:

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a) an inputting step of inputting image data of plural objects;

b) an encoding step of encoding the inputted image data on an object basis; and

5 c) a controlling step of setting a priority order of code amount allocation for each of the objects and, in accordance with said priority order, controlling encoding conditions for each of the objects in said encoding step,

10 wherein, in said controlling step, the encoding conditions in said encoding step are controlled so that a total code amount obtained by encoding the image data of said plural objects does not exceed a predetermined code amount.

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